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The student supported by this grant was Bruce Davidson. However, during this final period of a no-cost extension, his RA salary was provided by the University of Wisconsin. The remaining Air Force Funds were used only for supplies and travel necessitated by his need to use a scanning electron microscope at Stevens Institute of Technology in Hoboken, New Jersey. The details of his experiments, on fabrication and analysis of SNS Josephson junctions made by writing across a thin YBCO film with a very fine electron beam, were discussed in the third annual technical report.

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to
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for
AASERT Grant No: F49620-92-J-0283
SUPERCONDUCTIVE ELECTRONIC DEVICES USING FLUX QUANTA
from

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The student supported by this grant was Bruce Davidson. However, during this final period of a no-cost extension, his RA salary was provided by the University of Wisconsin. The remaining Air Force Funds were used only for supplies and travel necessitated by his need to use a scanning electron microscope at Stevens Institute of Technology in Hoboken, New Jersey. The details of his experiments, on fabrication and analysis of SNS Josephson junctions made by writing across a thin YBCO film with a very fine electron beam, were discussed in the third annual technical report.

Mr. Davidson has been very successful in making nearly ideal SNS junctions on high T_c superconducting thin films with this scribing technique. He has spent the last few months making careful and detailed electrical measurements on these junctions. A paper has been accepted by Applied Physics Letters and a second paper and his PhD thesis are in preparation. He expects to finish his degree during the Fall semester of 1996.